UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,623	03/19/2004	Michael Wagner	10139/01602	2145

76960 7590 07/19/2010

Fay Kaplun & Marcin, LLP
150 Broadway, suite 702
New York, NY 10038

EXAMINER	
FISHER, ELANA BETH	

ART UNIT	PAPER NUMBER
3733	

MAIL DATE	DELIVERY MODE
07/19/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/805,623	WAGNER ET AL.	
	Examiner	Art Unit	
	ELANA B. FISHER	3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-176* is/are pending in the application.

4a) Of the above claim(s) *56-65 and 164-176* is/are withdrawn from consideration.

5)☒ Claim(s) *1-52 and 66-88* is/are allowed.

6)☒ Claim(s) *89-100,104-126,130-147 and 151-163* is/are rejected.

7)☒ Claim(s) *100-103,127-129 and 148-150* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 89-100, 104-126, 130-147, and 151-163 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. (U.S. Patent 5,190,544) in view of Talos et al. (U.S. Patent 5,709,686) and Lin (U.S. Patent 5,085,660).

Chapman et al. disclose a bone plate (69 +171) having a longitudinal axis and comprising: an upper surface, a lower surface (FIG 31), and a plurality of three types of holes (193, 185, 85). The first type of hole (85) is elongated, extends through the upper and lower surfaces (FIG 9), and has a central axis and a longitudinal axis (FIG 9). The second type of hole (193) is substantially non-threaded and extends through the upper and lower surfaces (FIG 29). The third type of hole (185) has an outer perimeter that is substantially circular and is conically tapered at an angle of between about 5° and about 20°from the upper surface towards the lower surface of the plate (FIG 29). The plurality of first and third type of holes are located closer to a first end of the plate (FIG 30) and the plurality of second type of holes (193) are located closer to a second end of the plate (FIG 29; FIG 31). Additionally, the longitudinal axis of at least one of the first type of hole (85) is substantially aligned with the longitudinal axis of the plate (FIG 9).

The second type of hole (193) has a first opening on the upper surface of the bone plate and a second opening on the bottom surface of the bone plate, and the first and second openings have substantially the same dimensions (FIG 29; FIG 30). The first type of hole (85) has a non-threaded portion (FIG 9) that is concave in a substantially spherical shape and tapers inward from the upper surface to the lower surface to form at least one ramp surface for engagement with a screw head (FIG 9; FIG 14) and in order to provide compression in a single direction, such that the non-threaded portion of the first type of hole (85; FIG 9) is configured and dimensioned to engage a substantially spherical screw head and provide compression of fractured bone fragments (FIG 31). The bone plate further includes a screw having a head, wherein the screw head is substantially smooth (FIG 31). Additionally, the first type of hole has a first dimension on the lower surface that is substantially parallel to the longitudinal axis and a second dimension on the lower surface that is substantially perpendicular to the longitudinal axis; and the first dimension is between 1.1 and 3 times larger than the second dimension (FIG 9).

However, Chapman et al. fail to disclose that the first type of hole (85) is at least partially threaded. Talos et al. disclose a bone plate comprising a first type of hole (FIG 1) that is partially threaded, the threaded portion of the hole tapering inward with respect a the central axis (FIG 1). The first type of hole also comprises a non-threaded portion (FIG 1), such that the first type of hole has spaced apart first and second ends along the longitudinal axis, and the threaded portion is disposed adjacent one of the ends (FIG 1). The bone plate further includes a screw having a head, wherein the screw head is at least partially threaded (FIG 5). It therefore would have been obvious to one skilled in the art

to modify the bone plate taught by Chapman et al. by having the first type of hole be partially threaded, as is taught by Talos et al. because the threading provides a more rigid connection between the head of a bone screw and the bone plate (Talos et al.; Column 2).

Chapman et al. additionally fail to disclose that the third type of hole (185) includes an internal thread configured and dimensioned for engaging a threaded portion of a screw head. Lin discloses a bone plate comprising a hole (12) that is threaded and configured and dimensioned for engaging a threaded screw head. It therefore would have been obvious to one skilled in the art to modify the bone plate taught by Chapman et al. by having the third type of hole include threads, as is taught by Lin, because the threads provide a more rigid and secure connection between the head of a bone screw and the bone plate.

Allowable Subject Matter

3. Claims 1-52 and 66-88 are allowed.

4. Claims 101-103, 127-129 and 148-150 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed May 3, 2010 have been fully considered but they are not persuasive.

Examiner has considered applicant's arguments, however respectfully disagrees. Applicant argues that the rejection should not stand because Chapman in view of Talos et al. fail to disclose that the threaded portion of the first type of hole tapers inward with

respect to the central axis of the hole. Examiner has modified Chapman in view of Talos et al. for this limitation in the claims. While examiner agrees with applicant's remarks in that the threading taught by Talos et al. does not taper, examiner maintains that the threaded portion of the hole taught by Talos et al. does, in fact, taper. FIG 1 clearly shows a conically flared area (5) that tapers inward towards the central axis of the hole. The conically flared area is directly connected to the partial threading of the hole. Therefore, the portion of the hole with threading tapers inward with respect to the central axis of the hole. Accordingly, the threaded portion of the hole tapers and therefore satisfies the claim language. In lieu of the aforementioned arguments, examiner maintains the rejection above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELANA B. FISHER whose telephone number is (571)270-3643. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571)272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elana B Fisher/
Examiner, Art Unit 3733

/TODD E. MANAHAN/
Supervisory Patent Examiner, Art Unit 3734